

Application Serial No.: 10/089,149
Reply to Office Action dated March 11, 2005

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-5 are presently active in this case, Claims 1-5 having been amended by way of the present Amendment.

In the outstanding Official Action, Claims 1, 2, and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maki et al. (U.S. Patent No. 6,128,517) in view of John et al. (U.S. Patent Pub. No. 2002/0091335). Claims 3 and 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maki et al. in view of John et al. and Chance (U.S. Patent No. 6,708,048). For the reasons discussed below, the Applicant traverses the obviousness rejections.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations. The Applicant submits that a *prima facie* case of obviousness has not been established in the present case because there is no suggestion or motivation to combine the references to arrive at the present application.

Claim 1 of the present application recites a portable stethoscope comprising a probe section for noninvasively irradiating a diseased part with near-infrared light. The probe has radiation and light-receiving fibers. The portable stethoscope further comprises a control device connected to the probe section via a lead wire. The control device includes a

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semiconductor laser light source connected to the radiation fiber, an optical detector connected to the light-receiving fiber, a controller for detecting a change in cerebral circulation blood flow on the basis of data output from the probe section, and a sound source device for converting the change in cerebral circulation blood flow to sound pulses. The portable stethoscope also comprises a pair of lead wires and receivers connected to the sound source device of the control device, wherein auscultation is performed on the basis of the sound pulses from the sound source device in order to diagnose a change in cerebral function. The Maki et al. reference describes an optical system for measuring metabolism in a body and an imaging method. Light rays of a plurality of wavelengths which are modulated in intensity with a plurality of different frequencies are irradiated on a plurality of irradiation positions on the surface of a living body, and time-variable changes in living body transmitting light intensity levels corresponding to the respective wavelengths and the respective irradiation positions are measured at different positions on the surface of the living body.

The invention described in the Maki et al. reference is of an optical system for measuring metabolism in a body. The system is complex and bulky in nature, and thus requires much space.

The John et al. reference describes a device that is very different from the device described in the Maki et al. reference. The John et al. reference describes a portable EEG (electroencephalograph) instrument that detects and amplifies brain waves and converts them into digital data for analysis by comparison with data from normal groups. In one embodiment, the EEG electrodes are in a headband which broadcasts the data, by radio or cellular phone, to a local receiver for re-transmission and/or analysis.

Again, the John et al. reference does not describe a portable stethoscope as recited in the claims of the present application. The John et al. reference describes system in which headbands containing EEG electrodes broadcast data to a separate unit, which then receives and analyzes the data or retransmits the data. The device of the John et al. reference is not a stethoscope unit having the various interconnected parts as recited in Claim 1 of the present application. Additionally, the device described in the John et al. reference is for an EEG instrument, and one of skill in the art would not have looked to this art to solve problems with the optical system described in the Maki et al. reference, since these devices utilize significantly different means of analyzing the body. For example, it is difficult to imagine how the optical system described in the Maki et al. reference could be implemented using the embodiment depicted in Figure 2 of the John et al. reference. Such a combination would require significant re-engineering in order to arrive at an operable system, assuming that such a system can be achieved.

The Applicant respectfully submits that the rejection is based on the improper application of hindsight considerations. It is well settled that it is impermissible simply to engage in hindsight reconstruction of the claimed invention, using Applicant's structure as a template and selecting elements from the references to fill in the gaps. *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). Recognizing, after the fact, that a modification of the prior art would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. Simplicity and hindsight are not proper criteria for resolving obviousness. *In re Warner*, 397 F.2d 1011, 154 USPQ 173 (CCPA 1967).

The present invention provides an advantageous portable stethoscope that can utilize

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as a diagnostic instrument by doctors in a manner similar to a classic stethoscope, by providing sound information that enables a user to quickly assess the health of the patient using a convenient and portable instrument.

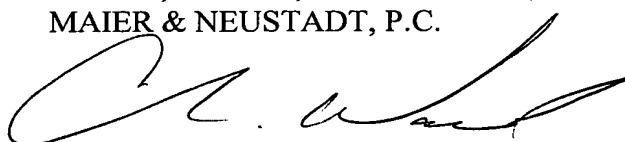
Accordingly, the Applicant respectfully requests the withdrawal of the obviousness rejection of Claim 1.

Claims 2-5 are considered allowable for the reasons advanced for Claim 1 from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed nor suggested by the applied references when those features are considered within the context of Claim 1.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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